

20. Industrial Landfill

20.1 General Description

A 15-acre industrial landfill is located west of the paper machines at Bowater's Catawba facility. Paper, bark, and other wood product wastes are deposited within the landfill on a daily basis. While mill refuse is disposed on-site, commercial and office waste streams are collected and transported off-site for disposal. Sludge, generated from the wastewater treatment process, is excavated from the sludge ponds and disposed to the industrial landfill as needed. Fill dirt is removed from the on-site borrow pits and deposited atop the refuse as daily cover.

20.2 Emission Source/Unit Identification

The following list gives the emission units Bowater's Industrial Landfill in Catawba, South Carolina. The list also assigns a number for each emission unit. This number is the Equipment ID Number for the emission unit. The Equipment ID Number is not the number of any individual piece of equipment in the mill. Rather, it is the number assigned to all pieces of equipment associated with a given emission unit.

Area of Mill	Emission Unit	Equipment ID Number
Waste Treatment	Landfill	2900

From communications with mill personnel and from comparisons with similar pulp and paper mills, it is conservatively assumed that the maximum disposal rate is 30 tons/day.

Raw Materials:	refuse	= 30 tons/day
Products:	n/a	n/a

20.3 Emission Calculations

Emissions from the landfill are primarily in the form of PM and VOCs. EPA Document 450/3-77-010 reports emission factors for PM, but there are currently no approved methods for estimating VOC emissions from an industrial landfill at an integrated pulp & paper mill.

20.3.1 Allowable Emissions

SC Regulation 61-62.1 - Definitions, Permit Requirements, and Emissions Inventory

Section II - Permit Requirements

Emission Limitation: none

SC Regulation 61-62.6 - Control of Fugitive Particulate Matter

Emission Limitation: none

SC Regulation 61-62.7 - Good Engineering Practice Stack Height

Emission Limitation: none

20.3.2 Actual Emissions

Particulate Matter Emission Estimates

The dumping of refuse in landfills may be a potential source of particulate emissions. EPA Document 450/3-77-010 states, "for most waste dumps, there are emissions when the material is dumped onto the pile but probably only minimal additional emissions from wind erosion due to a lack of small particles on the surface. An emission factor of 10 g/Mg (0.02 lb/ton) has been used to estimate dust emissions from truck dumping of large material." This emission factor will be used to estimate particulate emissions from dumping of refuse into the industrial landfill at this facility. Potential PM emissions (in the form of PM-10) are

$$\begin{aligned}\text{PM-10} &= (0.02 \text{ lb/ton}) \times (1,000 \text{ tons/day}) \times (365 \text{ days/yr}) \times (\text{ton}/2,000 \text{ lb}) \\ &= 4 \text{ tons/yr}\end{aligned}$$

VOC Emission Estimates

VOC emissions from the landfill may be present, but currently there are no approved methods to quantify these emissions.